

PATENT COOPERATION TREATY

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REC'D 13 JAN 2005

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 1002079 wo		FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/NL2004/000040		International filing date (day/month/year) 19.01.2004	Priority date (day/month/year) 22.01.2003	
International Patent Classification (IPC) or national classification and IPC H01L21/00, H01L21/683				
Applicant FICO B.V.				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand 22.10.2004		Date of completion of this report 13.01.2005		
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer Oberle, T Telephone No. +31 70 340-4014		



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/NL2004/000040

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-5 as originally filed

Claims, Numbers

1-12 as originally filed

Drawings, Sheets

1/2-2/2 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/NL2004/000040

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-9
	No: Claims	10-12
Inventive step (IS)	Yes: Claims	
	No: Claims	1-12
Industrial applicability (IA)	Yes: Claims	1-12
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item V.

1 The following documents are referred to in this communication:

D1 : WO 01/75966 A (SYNOVA S.A.) 11 October 2001 (2001-10-11)
D2 : US 2002/139235 A1 (NORDIN ET AL.) 3 October 2002 (2002-10-03)
D3 : PATENT ABSTRACTS OF JAPAN vol. 0152, no. 91 (E-1093), 24 July 1991
(1991-07-24) -&; JP 3 102850 A (FUJITSU LTD), 30 April 1991 (1991-04-30)

2. Claim 1

The document D1 is regarded as being the closest prior art to the subject-matter of claim 1 and discloses (the references in parentheses applying to this document, see figure 1):

a carrier (3) for supporting and engaging semiconductor products (1) during separating of the products using laser light (7), wherein the carrier (3) comprises a flat carrying side (ref.5 in fig.1, see also p.4 ln.20 : carrier 5 is a plate; it is implicit that a plate has a flat carrying side) and is manufactured from a material at least substantially not absorbing the laser light (see p.5 ln.1,2)

The subject-matter of claim 1 therefore differs from this known D1 in that the plate of the carrier is provided with a pattern of holes arranged in the flat carrying side.

The problem to be solved by the present invention may therefore be regarded as finding a suitable method of attracting a semiconductor product.

In D1, the semiconductor product can be held by vacuum (see p.5 ln.18-21). One method of attraction using vacuum is described in document D2 (see figures 1,3) and involves a pattern of suction holes arranged on a support plate for attracting a strip containing semiconductor devices. The skilled person would therefore regard such an arrangement for vacuum attraction as a normal design and include this feature in the carrier described in document D1 in order to solve the problem posed.

Therefore, the subject-matter of claim 1 does not involve an inventive step and does not satisfy the criterion set forth in Article 33(3) PCT.

3. Dependent claims 2-9 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step (Article 33(3) PCT), see documents D1,D2,D3 and the corresponding passages cited in the search report.

4. Claim 10

Document D2 discloses (the references in parenthesis applying to this document, see figures 1,3,7):

A method for supporting and engaging semiconductor products (20 in figure 7) during separating of the products using laser light (see paragraph 30) , comprising the processing steps of:

- A) placing an assembly of semiconductor products for separating onto a flat plate (26 in figure 7) provided with a pattern of holes (11 in figure 1)
- B) applying an underpressure to the holes of the pattern of holes such that the assembly of semiconductor products is drawn against the plate (see paragraph 30),
- C) directing at least one laser beam onto the assembly and cutting through the assembly where this is desired by means of mutual displacement of the laser source and the flat plate such that each severed semiconductor product is still connected to at least one hole in the flat plate (see paragraphs 30 and 44), and
- D) taking the separated products from the plate (see figure 14)

Therefore, the subject-matter of claim 10 is not new in the sense of Article 33(2) PCT.

5. Dependent claims 11, 12 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty (Article 33(2)), see document D2 and the corresponding passages cited in the search report.